UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MEMORANDUM

SUBJECT: Five-Year Review for the J. H. Baxter Superfund Site, Weed, CA

FROM: Travis Cain, Superfund, Remedial Project Manager
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THRU: Kathi Moore, Chief
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TO: Keith Takata, Director
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I. INTRODUCTION

The purpose of this document is to provide a Five-Year Review for the J. H. Baxter Superfund Site. This statutory Five-Year Review, of a remedy in which waste will remain on-site after completion of the remedy at levels which preclude unlimited usage and unrestricted exposure, must be conducted pursuant to CERCLA section 121 (c), NCP section 300.400(f)(4)(ii) . This review (Type 1a) is applicable to sites at which remediation is ongoing and EPA is present at the site (OSWER Directive 9355.7-02A, "Supplemental Five-Year Review Guidance", 7/26/94).

II. FIVE-YEAR REVIEW SUMMARY

The J. H. Baxter site is located at the northeastern border of the city of Weed in Siskiyou County, California. The Superfund site includes property owned by J. H. Baxter & Company and Roseburg Forest Products. J. H. Baxter operates a wood treatment plant. Roseburg operates a lumber mill and veneer plant. Wood treatment is intended to protect wood from deterioration from insects and fungi and has historically used a variety of chemical compounds including the follow: cresosote, arsenic, chromium, copper, zinc, and pentachlorophenol. Wood treatment operations and related chemical handling and disposal practices or over the past 60 years have resulted in contamination of soil, surface water, and groundwater.

Land use in the site area consists of pasture, mixed-woodland, wildlife habitat, and residential development. The site is bordered on the west and northwest by residential areas of Weed including Siskiyou Union High School, to the north by the Angel Valley Subdivision and Lincoln Park, to the east by mixed-woodlands, and to the south by irrigated pasture. Beaughton Creek runs through the eastern portion of the site and forms the northern boundary of the site.

Regional physiographic features include Shasta Valley, along with Mount Shasta, Mount Shastina, and Black Butte. The site is underlain by coalescent fans of pyroclastic, mudflow, glacial, and fluvial deposits off the northwestern flank of Mount Shasta and Mount Shastina. The water table is shallow, 0-10 feet below ground surface.

The Potentially Responsible Parties (PRPs), as identified by EPA are J. H. Baxter, International Paper, Beazer East, and Roseburg Forest Products. The group of PRPs have formed the Weed Remediation Group (WRG) in response to EPA's initiative to clean up the site. The State of California first identified the J. H. Baxter site as an environmental problem in the early 1980's. EPA placed the site on the National Priorities List (NPL) in 1989. EPA released the Remedial Investigation and Feasibility Study in April of 1990. EPA selected the remedy for the J. H. Baxter site in the Record of Decision (ROD) signed in September 1990 with modifications made in the ROD Amendment signed on March 27, 1998. The remedies selected include:

- storm and surface water treatment/containment system
- mitigation of wetlands
- restoration of contaminated groundwater outside the DNAPL zone by pumping and treatment;
- construction of a slurry wall to contain an area of contaminated groundwater, which cannot be cleaned up (the DNAPL zone); technical impracticability (TI) waiver for groundwater within the slurry wall.
- excavation, treatment and onsite disposal of contaminated surface soils both inside and outside the DNAPL zone as well as subsurface soils (deeper than two feet) outside the DNAPL zone in a RCRA equivalent disposal cell.
- installation of an asphalt surface on the J. H. Baxter Property to cap areas where excavation of contaminated soils has occurred;
- bioventing of Area B soils
- implementation of institutional controls.

For soils contaminated with inorganics (arsenic, chromium, copper, and zinc) only, the selected remedy is to excavate the soil, and fix it with a cement-based compound. Fixed soil exceeding CCR Title 22 TTLC/STLC criteria is to be placed in the RCRA cell. Fixed soil meeting TTLC/SLTC criteria is to be backfilled and covered with two feet of clean soil. All fixed soil being placed in the RCRA cell must achieve arsenic leachate concentration less than the 40 CFR268 TCLP level of 5.0 ppm.

For soils contaminated with organics, primarily polycyclic aromatic hydrocarbons (PAHs) and also Pentachlorophenol (PCP) and dioxins/furans in concentrations exceeding the 1990 ROD standards, EPA's selected remedy calls for soils to be excavated and bioremediated on-site. The bioremediation is being performed via landfarming, which was specified in the ROD amendment of 1998, and this effort is progressing. Treated soils will be placed in the RCRA cell.

Area B soils are contaminated with organics. Area B soils were covered with two feet of clean soils and in-situ biotreating using bioventing is ongoing as specified by the ROD amendment of 1998. The Area B soils treatment component is monitored for progress. EPA will evaluate the results of modeling and/or other studies to assess the impact of contaminated soils on groundwater in order to ensure that the cleanup levels achieved by bioventing will be protective of groundwater. If EPA concludes that the cleanup levels achieved by bioventing will not be protective of groundwater, then the remedy will be biotreatment and subsequent disposal in a RCRA disposal cell. Area B soils to be placed in the RCRA disposal cell must comply with the 1990 ROD treatment standards.

For soils contaminated with both inorganics and organics outside the DNAPL zone, the remedy is to excavate the soil and biologically treat it to reduce or destroy organic contaminants, and to fix the treated soil with a stabilization agent to control mobility of the inorganics and residual organics. The treated and fixed soil would then be placed into RCRA cell in a manner protective of human health and the environment. Subsurface soils contaminated with inorganics and organics in the DNAPL zone (TI waiver area) will be covered with two feet of clean soil and institutional controls will be implemented.

The remedy for groundwater in the DNAPL zone is to extract contaminated groundwater, treat to ROD standards and discharge treated groundwater. The 1990 ROD was enhanced by the 1997 ROD Amendment by the addition of a slurry wall around the DNAPL zone. The slurry wall was constructed inconjunction with extraction wells to collect this groundwater at the boundary and treat. Groundwater outside the DNAPL zone will be extracted, treated to ROD standards, and reused for dust control at J.H. Baxter, or reused on the Roseburg's log decks, or discharged to Beaughton Creek. The acquifer will be cleaned up to ROD standards. Long term groundwater monitoring will be required to demonstrate the protectiveness of the remedies. The implemention of institutional controls to restrict access and use of contaminated groundwater, to prevent expose to deep soil contamination left in the DNAPL zone, and to protect the integrity of the remedy were included in the 1998 ROD Amendment.

Pursuant to the selected remedy, surface water is being controlled and treated to prevent movement of site chemicals into Beaughton Creek. Currently, surface water runoff is collected in two ponds. One of the ponds was expanded in 1996 to increase the holding capacity. The runoff collected in these ponds is pumped to two holding tanks and treated at the onsite water treatment facility. Regular surface water monitoring is being conducted and the results is being reported on a quarterly and an annual basis. Due to the overflow of the storage tanks, two unauthorized discharges of surface water occurred in December 1996. The first discharge was about 250,000 gallons (on 12/09/1996) and the second was approximately 600,000 gallons (on 12/30/1996 to 01/01/1997). The ponds and holding tank capacities were increased after the 1997 discharge to remedy the water overflow problems. Surface runoff controls were incorporated into the soils remedy design. Treated surface water is being reused on Roseburg's logging decks.

The remedy for sediments in ditches was amended by the 1998 ROD Amendment to allow contaminated sediments to degrade naturally to the standards specified in the ROD. Natural flushing and attenuation are reducing the concentrations of contaminants. Stream sediments will continue to be monitored and cautionary signs will be posted in areas of concern. In addition all water runoff from ditches will continue to be monitored to ensure protectiveness.

In summary, the remedial objective of these remedies is to prevent or greatly reduce contact between water and contaminated soil, thereby preventing or minimizing water contamination. The water treatment facility is complete and operation continues at this current date. To date, progress has been made in field testing of landfarming and treatability studies of predominantly organic contaminated soils and soil with both organics and inorganics. The asphalt cap test pad, construction of the biotreatment system using land farming, construction of bioventing system, construction of the storm water pond, the containment and treatment of storm water runoff system, extraction and treatment of groundwater, monitoring of surface and groundwater quality, soil excavation, water treatment plan upgrades, and slurry wall construction with installation of extraction/monitoring wells are complete at this date. The activities requiring completion at the J. H. Baxter site are the asphalt cap, RCRA disposal cell, and institutional controls. All applicable or relevant, and appropriate requirements (ARARs) are unchanged from the remedy selection. A detailed discussion on the ARARs is provided in the ROD. EPA is the lead agency for this site.

III. RECOMMENDATIONS

Based on this review, it is recommended that the remaining components of ROD shall be implemented under EPA oversight lead.

IV. CONCLUSION

I certify that the remedy selected for this site remains protective of human health and the environment. The remedy is expected to be protective of human health and the environment upon completion, and immediate threats have been addressed. The approval Health and Safety Plan is in place for the current remedial action. EPA has confirmed that all measures needed to address immediate threats during the current construction at the J.H. Baxter Superfund site are effectively preventing exposure risks. Based on the expected continuing presence of contamination at this site at levels which preclude unlimited use and unrestricted exposure, the next Five-Year Review will be written by five years from the date of signature of this review.

Approved by: Keith Takata — Date: 7-7-06

Keith Takata, Director
Superfund Division